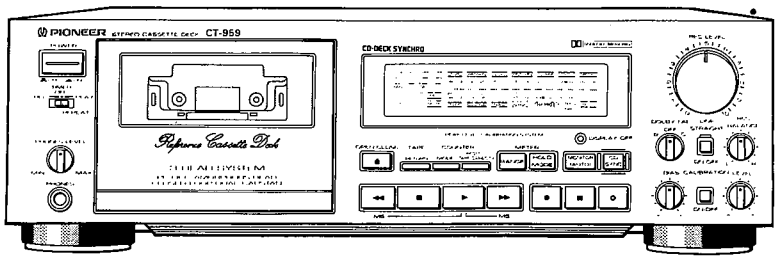
PIONEER®
The future of sound and vision.

Operating Instructions

CT-959
CT-757

English

STEREO CASSETTE DECK



The illustration shows model CT-959.

"This product complies with the Radio Interference requirements of the EC (European Community) Directive 87/308/EEC."

Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your unit properly. After you have finished reading the instructions, keep the manual in a safe place for future reference.
In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the drawings. However, the method of connecting and operating the unit is the same.

IMPORTANT

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT

If the apparatus is fitted with AC mains power outlet(s), see REAR PANEL FACILITIES for convenient connection of additional Hi-Fi component(s). Make all connections to the AC outlet(s) and the signal terminals first. Connect the plug to the wall socket last, make sure that the power switch is off.

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
Equipment sold in the U.K. is not supplied with a power plug.

SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the appliance is operated.
RETAIN INSTRUCTIONS — The operating instrucions should be retained for future reference.
HEED WARNING — All warnings on the appliance and in the operating instructions should be adhered to.
FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.
WATER AND MOISTURE — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
LOCATION — The appliance should be installed in a stable location.
WALL OR CEILING MOUNTING — The appliance should not be mounted to a wall or ceiling.
VENTILATION — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
HEAT — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
POWER SOURCES — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
POWER-CORD PROTECTION — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
POLARIZATION — If your purchased product is provided with a polarized power plug, please read the following instructions. This product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
CLEANING — The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.
POWER LINES — An outdoor antenna should be located away from power lines.
NONUSE PERIODS — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
OBJECT AND LIQUID ENTRY — Care should be taken so that objects do not fall and inquids are not spilled into the enclosure through openings.
DAMAGE REQUIRING SERVICE — The appliance should be serviced by a Pioneer authorized service center or qualified service personnel when:
- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped; on the enclosure damaged.

SERVICING — The user should not attempt to service the appliance beyond that described in the operating instructions. For all other servicing, contact the nearest Pioneer authorized service center.
OUTDOOR ANTENNA GRAUNDING — If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
In the U.S.A. section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.
CART — An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

NEC — NATIONAL ELECTRIC CODE

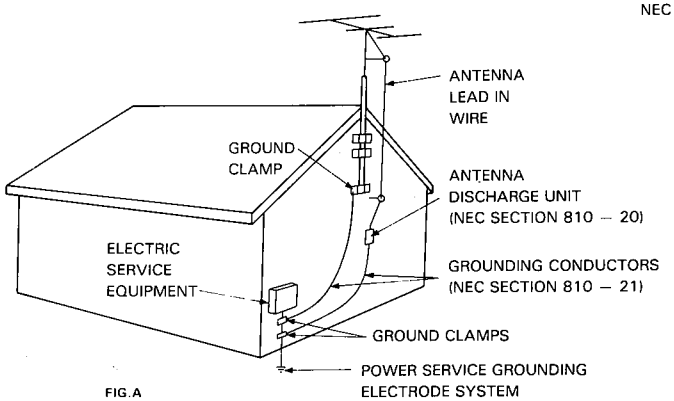


FIG.A

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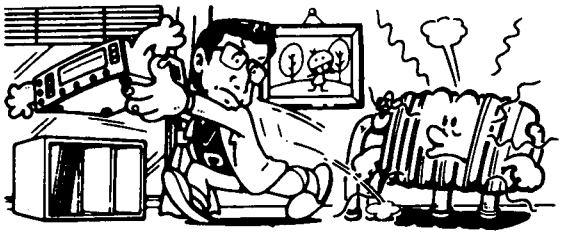
PRECAUTIONS ON INSTALLATION

HEAT

Do not place the unit near a heating device, on top of the amplifier or in a location where it is exposed to direct sunlight, as excessive heat may damage the finish and internal parts. Also, do not place a cloth on top of the unit or block the provided ventilation openings in any other way. Always make sure that the installation location provides sufficient ventilation to prevent overheating.



HUMIDITY, CONTAMINATION

Do not install the unit in an excessively humid or dusty location, as this may cause malfunctions and breakdowns. Also, avoid placing the unit next to kitchen counters or other locations where it is subjected to oily fumes.

NOISE INTERFERENCE

When the unit is placed directly on top of the amplifier it may pick up humming or other noise during recording. A turned-on TV set in close vicinity may also cause noise.

DEW CONDENSATION

When the unit is moved from a cold to a warm environment, or when the room temperature rises drastically, condensation forms on parts of the tape transport mechanism, causing malfunctions when the tape deck is operated immediately. To avoid this, allow the tape deck to acclimate to the new temperature by waiting about one hour before operating the unit.

INFORMATION TO USER [FOR U.S. MODEL]

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna
- relocate this equipment with respect to the receiver
- move this equipment away from the receiver
- plug this equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:
"How to Identify and Resolve Radio-TV Interference Problems".
This booklet is available from the US Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

The above instructions apply only to units which will be operated in the United States.

[For Canadian model]

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

[Pour le modèle Canadien]

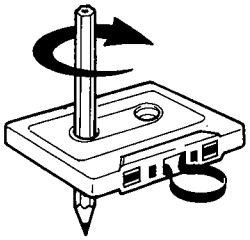
L'interférence, radioélectrique générée par cet appareil numérique de type B ne dépasse pas les limites énoncées dans le Règlement sur les perturbations radioélectriques, section appareil numérique, du Ministère des Communications.

HOW TO HANDLE CASSETTE TAPES

Before setting

■ Check if the tape is wound properly

An extended or slackened tape cannot be fed properly between the capstan and the pinch roller, and will cause damage to the tape. If an improperly wound tape is discovered, wind the tape properly by turning a pencil inserted into the reel axis of the cassette.
Some cassettes come equipped with a plastic or cardboard stopper to prevent slackening. Remove the stopper during use, and reinstall after wards.

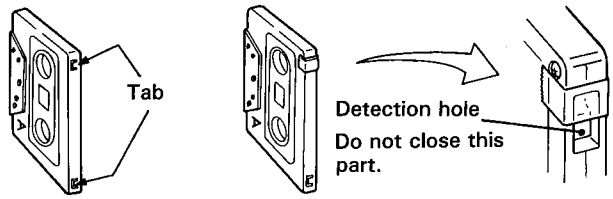


■ Do not use C-120 tapes

Do not use C-120 tapes; they are thin and tend to be caught by the pinch roller or the capstan, and are also subject to improper winding.

■ Prevention of accidental erasure or rerecording

A cassette tape is provided with tabs to prevent accidental erasure or rerecording.
As shown in the figure below, break off the tab with the tip of a screwdriver. This disables recording.
The tab is located on the upper left of Side A and B (or 1 and 2). If you want to record with a cassette tape which has broken off tabs, affix doubled adhesive tape to the tab position as shown in the following figure.



With metal or CrO_2 tapes, make sure not to cover the tape type detection hole. A closed detection hole will cause an incorrect auto tape selector operation.

For proper use

■ Be careful to check for the leader

The beginning of a tape is a leader (cannot be recorded). Run the tape for approximately 5 seconds before starting recording.

■ Storage of cassette tapes

Do not leave cassettes out without a case. Put the cassette tape into its case to prevent contamination by dusts or dirt and slackening after use. Store it in a place not exposed to dust, dirt, oil, magnetism, or humidity.

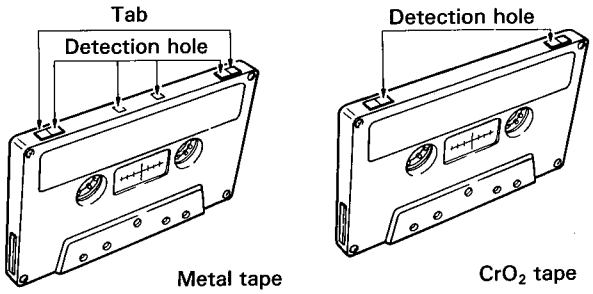
■ Check the tape before recording

It is recommended to fast forward/rewind the tape for test before recording to prevent damages caused by improper winding of the tape.

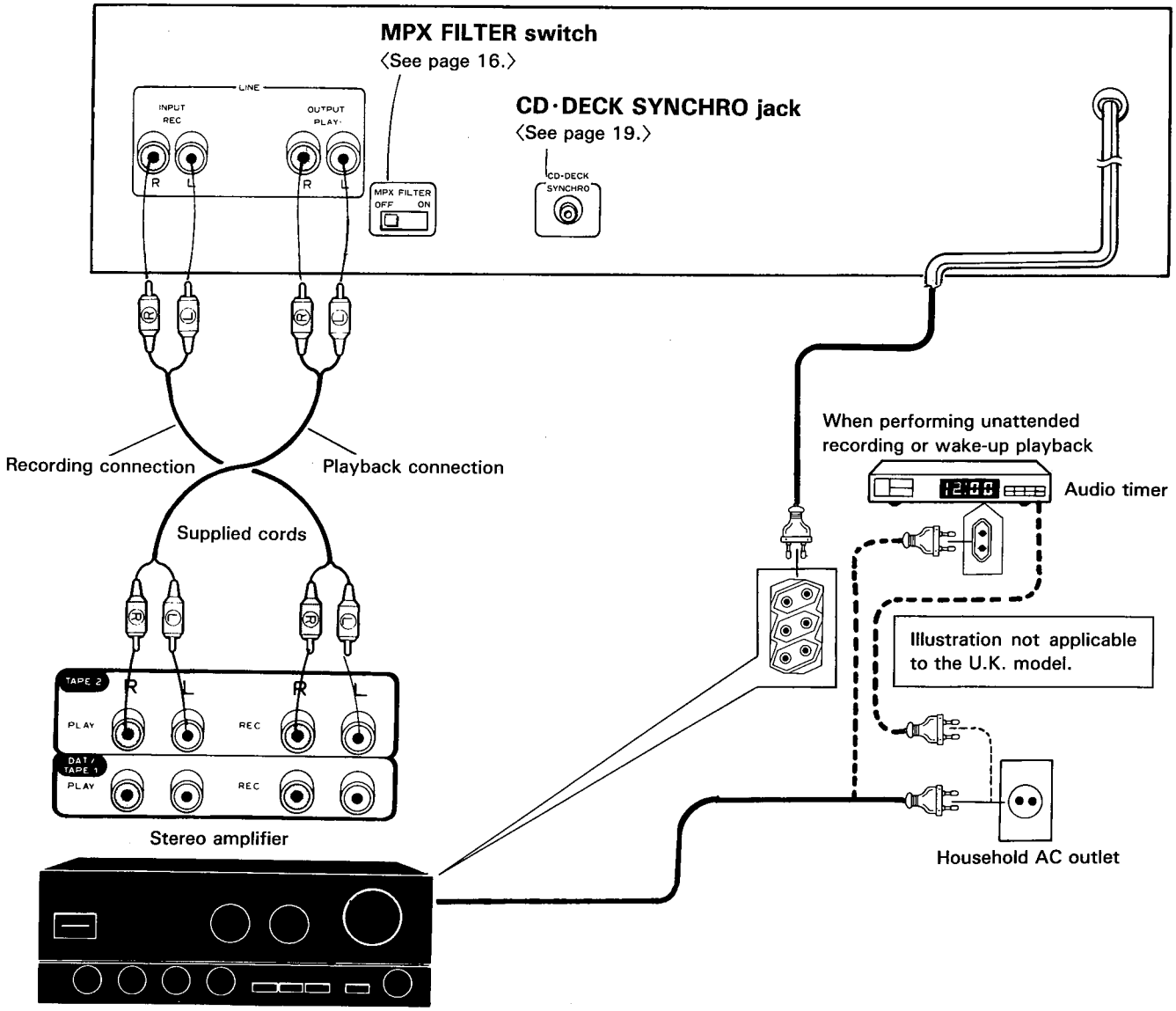
Auto tape selector

This cassette deck is equipped with an auto tape selector which detects the tape type via the detection hole on the cassette tape and automatically sets the optimum recording bias and equalization.

- Do not use FeCr tapes with this unit.
- Use metal tapes with a detection hole.



CONNECTION WITH AMPLIFIER



- Refer to the operating instructions of the stereo equipment connected to this unit.
- Do not turn the power of the stereo equipment ON until all connections are completed.
- Insert the plug completely. Incomplete connection will cause feedback.

Connection of input and output cords

- The cords to be used have white and red pin plugs.
- Connect white plugs to the left channel (L), and red plugs to the right channel (R), making sure that the colors match. Take particular care to insert the plugs all the way in.

Connection to an audio timer

For details on the connection to an audio timer, refer to the instruction manual of the audio timer.

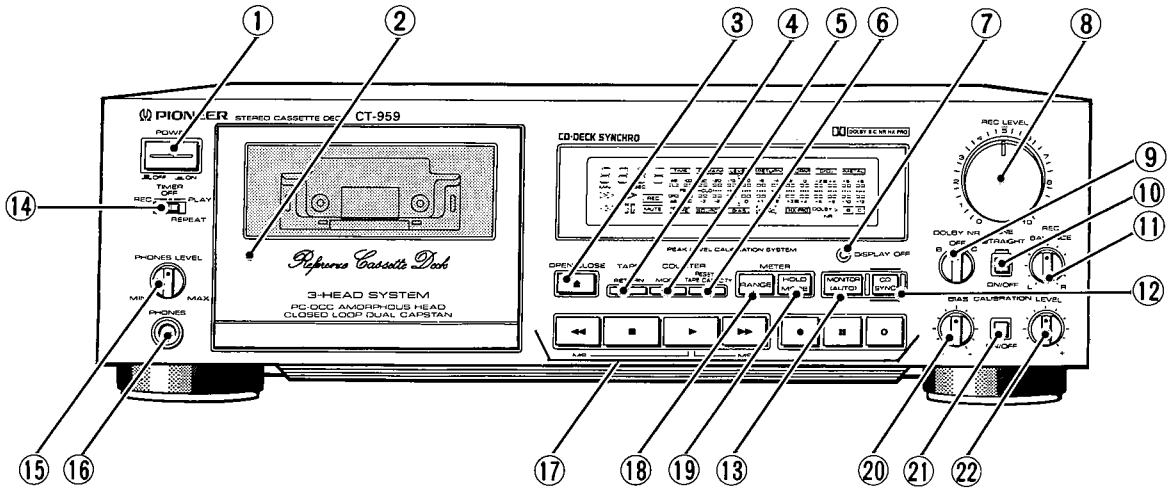
POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

PANEL FACILITIES

Front panel

The illustration shows model CT-959



① POWER switch

② Cassette door

③ Cassette door OPEN/CLOSE button

④ TAPE RETURN button

When this button is pressed, the tape will be fast forwarded or reversed until the tape counter reaches the "0000" range.

⑤ COUNTER MODE button

When pressed, the mode will change in sequence.

- TAPE COUNTER
- TIME COUNTER (displays elapsed time of recording or playback)
- REMAIN counter (displays time remaining on the tape) (CT-959 only)

〈See page 11.〉

For CT-959

⑥ COUNTER RESET/TAPE CAPACITY button

This button resets the counter display when in the TAPE COUNTER or TIME COUNTER modes. In the REMAIN mode, tape type indication will change every time the button is pressed, for setting of the tape type to be used.

C60→C46L→C90→C80L

For CT-757

⑥ COUNTER RESET button

This button resets the counter display when in the TAPE COUNTER or TIME COUNTER modes.

⑦ DISPLAY OFF button

To turn on/off the FL display.

⑧ REC LEVEL control knob

⑨ DOLBY* NR selector

To select Dolby type-B, type-C NR system and OFF.

*

- *Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.*
- *"Dolby", the double-D symbol and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.*

⑩ LINE STRAIGHT button (CT-959 only)

Bypasses recording balance volume.

⑪ REC BALANCE knob

⑫ CD SYNCHRO button (CD SYNC)

For automatic operation when recording a CD from a Pioneer CD player compatible with the CD·DECK SYNCHRO function.
〈See page 19〉

⑬ MONITOR (AUTO) selector

Switches SOURCE/TAPE sound when monitoring recording.

⑭ TIMER selector

REC: To record by timer.

OFF: To switch the timer or repeat functions off. Normally set to this position.

PLAY/REPEAT:
To play back by timer. When the switch is set to this position during normal playback, one side will be played back repeatedly (repeat playback). 〈See pages 9, 18.〉

⑮ Headphones level knob (PHONES LEVEL)

⑯ Headphones jack (PHONES)

⑰ Operation buttons

Recording button (●):
When this button is pressed, the mode will change to one-touch recording Pause (recording standby).
Recording will be started with the Pause (▮▮) button or the Play (►) button.

Pause button (▮▮):
When this button is pressed, recording or playback will be stopped temporarily. To resume recording/playback, press the button again. This function does not work during Fast Forward or Rewind mode.

Recording mute button (○):
Produces a blank space during recording.

Play button (►):

Stop button (■):

Rewind button (◄◄):
To rewind a tape. When this button is pressed during playback, the song being played back is rewound to the beginning. When this button is pressed twice, the song being played back is rewound to the beginning of the previous song <see page 17 for MUSIC SEARCH function>.

Fast Forward button (►►):
To fast forward a tape. When this button is pressed during playback, the song being played back is forwarded to the beginning of the next song. When this button is pressed twice, the song being played back is fast forwarded to the beginning of the song following the next song <See page 17 for MUSIC SEARCH function>.

⑱ METER RANGE selector

Switches the scale range (wide/expanded) of the level meter.
<See page 13.>

⑲ METER HOLD MODE button

Switches between the mode where the peak level lights for 1.2 seconds and the mode where the peak level lighting is continuous.
<See page 12.>

⑳ CALIBRATION-BIAS control knob

Changes the sound by increasing/decreasing the recording bias.
<See page 15.>

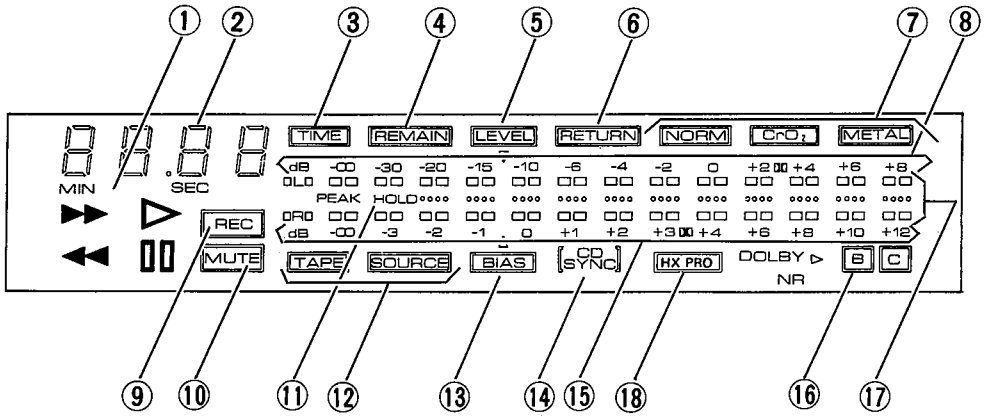
㉑ CALIBRATION-ON/OFF button

To set an optimum bias and level for the tape.
<See page 15.>

㉒ CALIBRATION-LEVEL control knob

Adjusts recording sensitivity according to the tape in use.
<See page 15.>

Indicator



① Travelling mode indicator

◄◄: Lights during rewinding mode.
►: Lights during playback, playback/recording Pause, and recording mode. Blinks during MUSIC SEARCH mode.
►►: Lights during fast forward mode.
▮▮: Lights during pause mode.

② Counter dispays (TAPE, TIME etc)

- Displays in three modes (CT-757 is two modes). <See page 11.>
- Displays the number of songs during MUSIC SEARCH mode. <See page 17.>

③ TIME counter mode

The numbers are lighted during TIME COUNTER mode.

④ REMAIN mode (CT-959 only)

The numbers are lighted during REMAIN mode.

⑤ Recording level (LEVEL)

Lights when the CALIBRATION ON/OFF button is pressed.

⑥ Return mode (RETURN)

Lights during tape return operation.

⑦ Tape type (NORM, CrO_2, METAL)

Displays the tape type (NORMAL/CrO_2/METAL) detected.

⑧ Wide range meter scale

⑨ Recording (REC)

Lights during recording.

⑩ Muting (MUTE)

Blinks when muting the recording.

⑪ PEAK HOLD

Lights/goes off when the METER HOLD MODE button is turned ON/OFF.

⑫ Monitor source (TAPE/SOURCE)

TAPE: Sound of tape
SOURCE: Sound of source

⑬ Recording bias (BIAS)

Lights when the CALIBRATION ON/OFF button is pressed.

⑭ CD·DECK SYNCHRO (CD SYNC)

Lights when the CD·SYNCHRO function is functioning.

⑮ Expand range meter scale

⑯ DOLBY B-TYPE NR/C-TYPE NR

Displays either DOLBY B-type or C-type NR system.

⑰ Level meter

L: Left channel
R: Right channel
Holds peak indications for about 1.2 second. ▯▯ (double D) symbol beside the +3dB mark indicates the Dolby NR systems standard level.

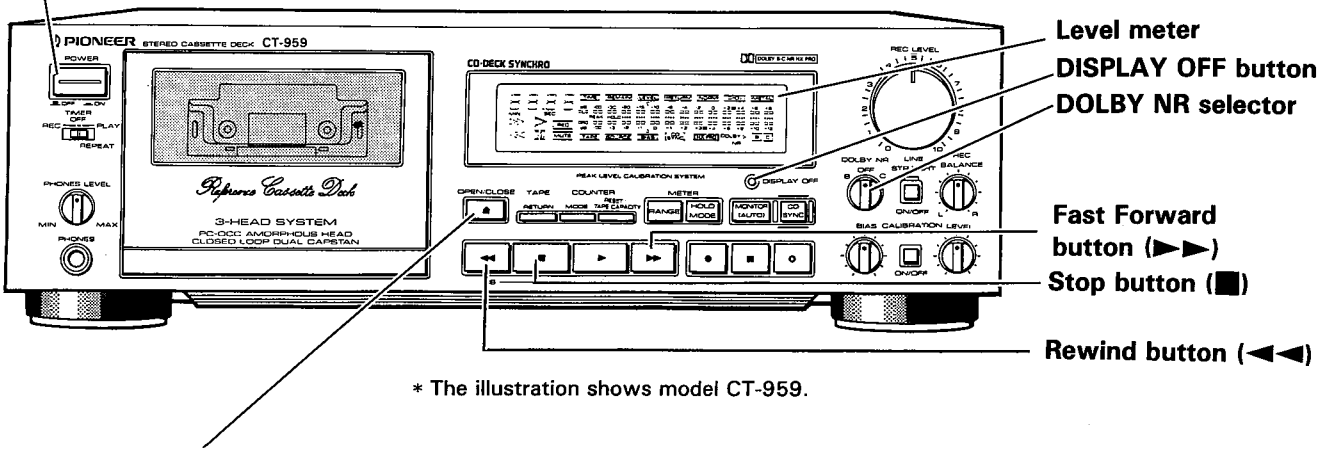
⑱ Dolby HX PRO indicator

This unit is provided with a built in Dolby HX PRO Headroom Extension circuit. The Dolby HX PRO indicator always appears on the display when the POWER switch is turned on.

PLAYBACK

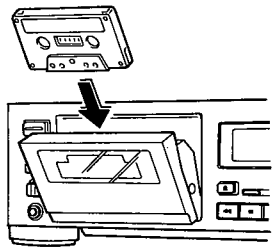
To turn the power ON.

- The dashed line indicated in the level meter blinks for approximately 4 seconds (until the circuit is stabilized) after turning the power ON. During this blinking, only the cassette door OPEN/CLOSE button functions. When closing the cassette door, make sure that the power is ON.



* The illustration shows model CT-959.

1 Press the cassette door OPEN/CLOSE button (▲).

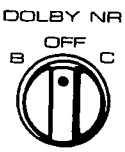


Insert a tape and press the button again to close the cassette door.

ATLC (Auto Tape Loose Canceler)
This function allows a loose tape to be wound properly. The take-up reel rotates automatically when the cassette door is closed.

2 Select the DOLBY NR type with the DOLBY NR selector.

The selected mode B-type or C-type will be displayed in the indicator. <See page 16.>



3 Press the Play button (►).

TAPE and (►) indicators light and playback starts. The scale of the playback signals will be indicated by the pointer on the level meter.
To stop playback temporarily, press the Pause button (❚❚). Playback will resume when the Pause button (❚❚) is pressed again.

Auto tape selector <See page 4.>
Detects the tape type by the detection hole of the cassette tape, and automatically sets optimum recording bias and equalization.

Stopping playback
Press the Stop button (■).

Fast forward
Press the Fast Forward button (►►) when playback is stopped.
(►►) indicator will light up.

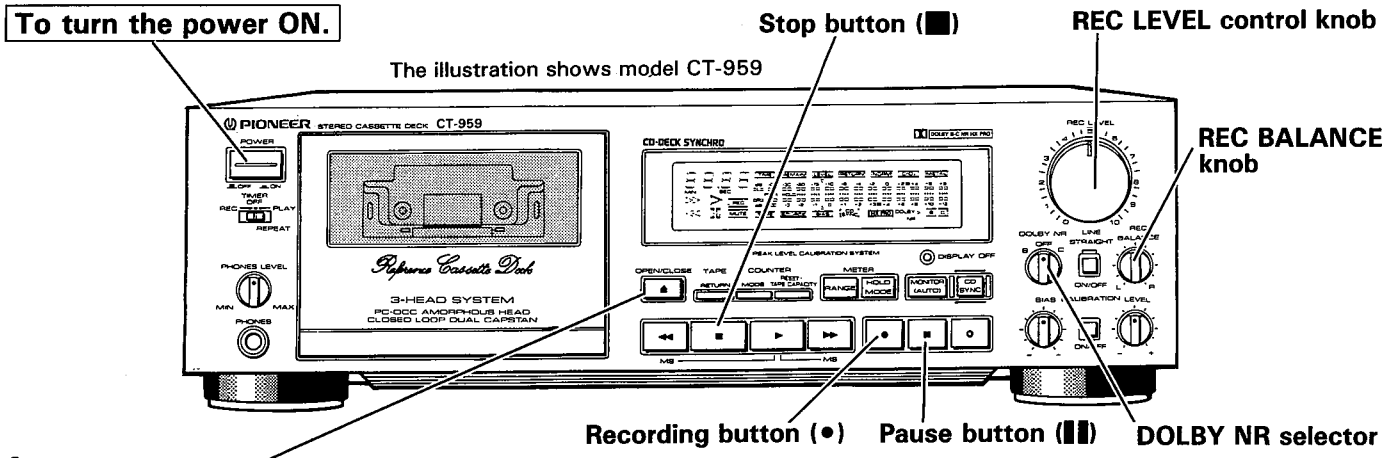
Rewind
Press the Rewind button (◄◄) when playback is stopped.
(◄◄) indicator will light up.

Music Search (MS)
Press the Fast Forward (►►) or Rewind (◄◄) button during playback. <See page 17.>

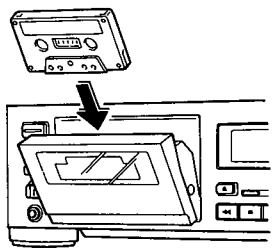
Repeat playback
To perform repeat playback, set the TIMER selector to PLAY/REPEAT side. When the tape end is reached, the tape will be automatically rewound to the beginning and playback will start again. Playback can be repeated a maximum of 16 times.

Display off
The level meter or indicator displays can be turned on/off with the DISPLAY OFF button.

RECORDING



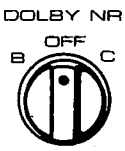
1 Press the cassette door OPEN/CLOSE button (⏏).



Insert a tape and press the button (⏏) again to close the cassette door.

2 Select the DOLBY NR type with the DOLBY NR selector.

〈See page 16.〉



3 Press the recording button (●).

The mode changes to recording standby (Pause).
REC and Pause (❚❚) indicators light up. The recording monitor changes to source mode, and SOURCE indicator lights.

4 Adjust the recording level with the REC LEVEL control knob.

Output the recording source sound from the amplifier, and adjust the level indicated by the level meter.

To balance the left (L) channel and right (R) channel:

The volume level of L and R channels might not be balanced perfectly depending on recording source or playback equipment. In such a case, adjust the balance with the REC BALANCE knob. Turning the knob clockwise decreases the level of the L channel. Turning the knob counterclockwise decreases the level of the R channel.

5 Press the Pause (❚❚) button.

- Recording starts.
  The recording monitor changes to tape mode, and TAPE indicator lights.
- To stop recording temporarily, press the Pause (❚❚) button. Recording will resume when the Pause button is pressed again.

Recording can be also started with the Play (►) button.

Stopping recording

Press the Stop (■) button.

Do not use C-120 tapes

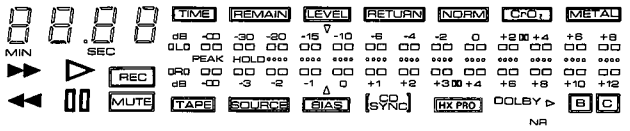
Do not use C-120 tapes; they are thin and tend to be caught by the pinch roller or capstan and are also subject to improper winding.

Do not use a tape in which the erasure protection tabs have been removed.

NOTES (CT-959 only)
The REC BALANCE knob does not function if the LINE STRAIGHT button is ON. Make sure that this button is OFF when balancing the recording level. 〈See page 13.〉

Adjusting the recording level

Adjustment of recording level is important for high quality recording. More advantage can be obtained in terms of S/N ratio (ratio of signal to noise levels) and dynamic range (range of sound impact), if the recording level is set to as high as possible. However, if it is set too high, the sound will be distorted. If the recording level is set too low, because of worry about distortion, tape noise will become too obvious. Note that tape characteristics are different between makers or types. Set the recording level to the maximum value for the tape in use for a high quality recording which utilizes the particular tape characteristics.



Adjust the recording level so that +6 dB for normal and chrome (CrO_2) taped and +8 dB for metal tapes light up once in a while. An optimum recording level depends on the particular music or tape type. Listen to the playback sound to find the optimum level for better recording.

This cassette deck has the following functions useful to recording level adjustment:

PEAK HOLD MODE selection ..... **〈See page 12.〉**
METER RANGE selection ..... **〈See page 13.〉**
PEAK LEVEL CALIBRATION ..... **〈See page 14.〉**
Also, REC CALIBRATION allows for easy adjustment of recording level and bias optimum. 〈See page 15.〉

COUNTER MODES

COUNTER MODE button

The counter mode changes as follows every time this button is pressed.

[For CT-959]

TAPE COUNTER → TIME COUNTER → REMAIN COUNTER

[For CT-757]

TAPE COUNTER → TIME COUNTER

■ **TAPE COUNTER**

The number indicated in the counter increases/decreases according to playback. It might be helpful when searching the desired part later if you write down recording data with the number indicated on the counter during recording/playback.

■ **TIME COUNTER**

Displays the elapsed time during recording/playback. Time count will start automatically with recording/playback. The mode changes to Tape Counter when the tape is fast forwarded/rewound.

■ **REMAIN COUNTER (CT-959 only)**

Displays the time remaining on the tape during recording/playback. To use this function, select the correct tape type (length) with the COUNTER RESET/TAPE CAPACITY button. The time remaining will be displayed 5 to 7 seconds after recording/playback is started.

COUNTER RESET button

This button resets counter display during TAPE COUNTER or TIME COUNTER mode.

TAPE CAPACITY button (CT-959 only)

This button selection display during REMAIN mode, tape type indication will change every time the button is pressed. Select the correct tape type to be used.

→C60→C46L→C90→C80L

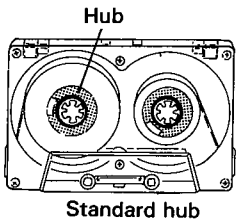
If you cannot find the exact tape length among the indicated tape types, make selection as shown below. The remaining time will be displayed in proximate accuracy.

Standard hub up to C60: C60 position
Large hub up to C60: C46L position
Standard hub up to C90: C90 position
Large hub up to C90: C80L position

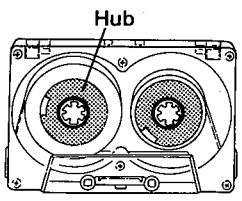
- The time counter displays only during recording and playback. The time count stops and the mode changes to Tape Counter if Fast Forward, Rewind or Music Seach are performed during recording/playback. Time count will resume when the mode returns to recording/playback.

[For CT-959]

- With some tapes, an accurate measurement of time remaining might not be displayed.
- The displayed time remaining might be slightly different from the measured value indicated on the tape package. With most tapes, amount remaining has a margin when the time remaining reaches "00.00" (with CT-959 only).
- A large hub means that the hub diameter is approximately 27 mm. Note that an accurate measurement of time remaining might not be obtained if a tape with a larger hub than that is used (CT-959 only).



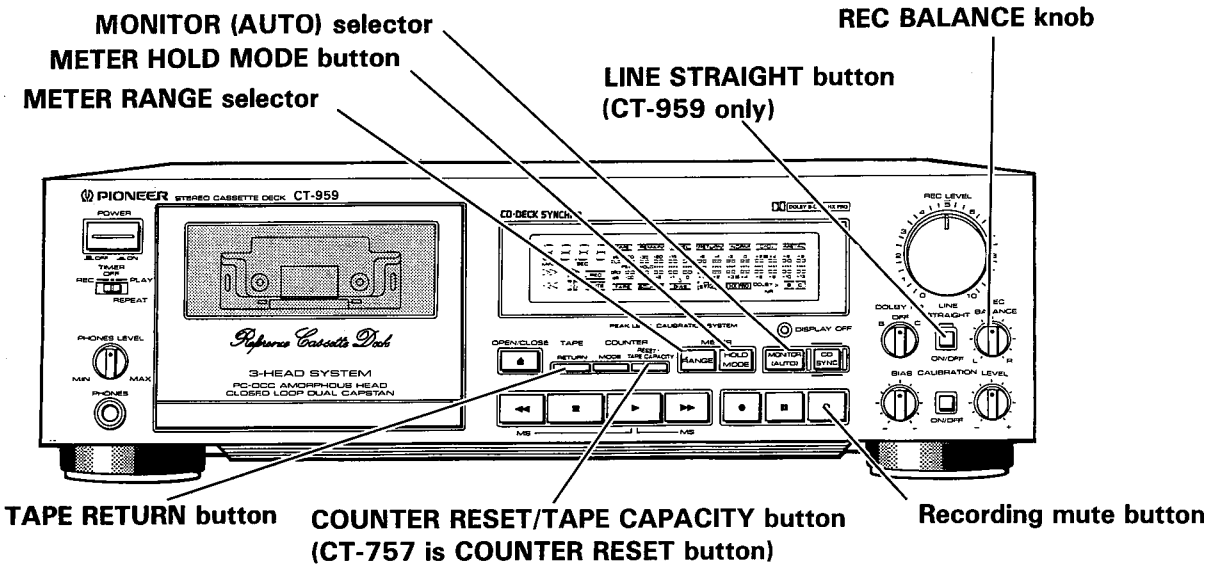
Standard hub



Large hub

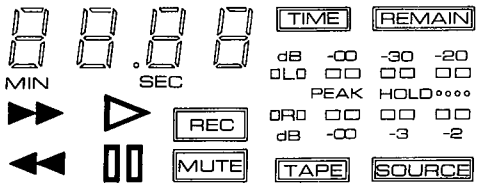
FOR BETTER RECORDING

The illustration shows model CT-959



Auto monitor

This function allows the recording monitor to be automatically switched to SOURCE in recording standby mode, and to TAPE when recording starts or during playback.



TAPE or SOURCE indicator is lit to show the monitor state.
To switch the monitor manually, press the MONITOR selector.

Switching of PEAK HOLD MODE

The holding duration of the peak value can be changed by pressing the METER HOLD MODE button.

- AUTO RESET mode (HOLD indicator is off):
  The peak value is held for 1.2 seconds, and then the next peak value is indicated. If a higher level is output within the 1.2 second span, the display will change immediately to that peak value.
- PEAK HOLD mode (HOLD indicator is on):
  The peak value is retained until a higher level is output. To erase this peak value, press the button again. This is a useful function when you want to know the maximum level through the entire recording.

3-head system

A 3-head system consists of three independent heads (erase, recording and playback) and an amplifier for recording and playback. The sound before recording (SOURCE) and after recording (TAPE) can be compared by switching the amplifier from recording to playback and vice versa with the MONITOR selector.

Tape monitor

SOURCE :
The source sound being recorded is output. Use this function when adjusting the recording level.

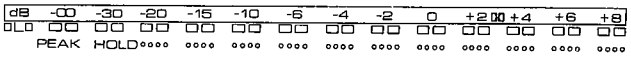
TAPE :
The sound recorded by the recording head can be output by playing back with the playback head at the same time (simultaneous monitor). This is a useful function for checking the optimum recording level, since the signals being recorded on the tape can be monitored at the same time with playback.

METER RANGE selector

The sensitivity of the level meter can be changed to wide or expanded mode by pressing the METER RANGE selector.

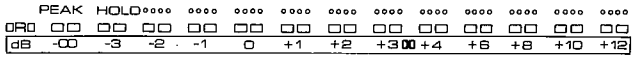
Wide range (standard range)

Displays −30 dB to +8 dB in 12 steps.



Expand range

Displays −3 dB to +12 dB in 12 steps, allowing subtle level adjustment.



AUTO REC MUTE

■ To produce a 4-second blank space:

Press the recording mute (O) button during recording.

*

The MUTE indicator blinks, and the mode changes to muting for approximately four seconds during which time recording is not done. After that, the mode changes to recording standby state. To resume recording, press the Pause (▮▮) button.

■ To produce a blank space of less than four seconds:

Press the recording mute (O) button, then the Pause (▮▮) button.

■ To produce a blank space of more than four seconds:

Continue pressing the recording mute (O) button.

*

The MUTE indicator blinks for four seconds, then is lit continuously after that. When it is released, the mode changes to recording standby state.

TAPE RETURN/RETURN PLAY (one-touch reset)

1. Press the COUNTER RESET button (CT-959 is COUNTER/TAPE CAPACITY button) at the desired part of the tape.

The counter will be reset to "0000". 〈See page 11.〉

2. Press the TAPE RETURN button.

The tape can be fast forwarded/rewound by one-touch. The tape stops when the counter reaches "0000" range.

When the Play (►) button is pressed during fast forward/rewind in TAPE RETURN function, playback will start from the proximity of "0000".

If the beginning of the tape is reached before the counter becomes "0000" during rewinding, playback starts from the beginning.

REC BALANCE knob

Adjust the volume balance of the L and R channels with the REC BALANCE knob.

Turning the knob clockwise decreases the level of the L channel.

Turning the knob counterclockwise decreases the level of the R channel.

LINE STRAIGHT (CT-959 only)

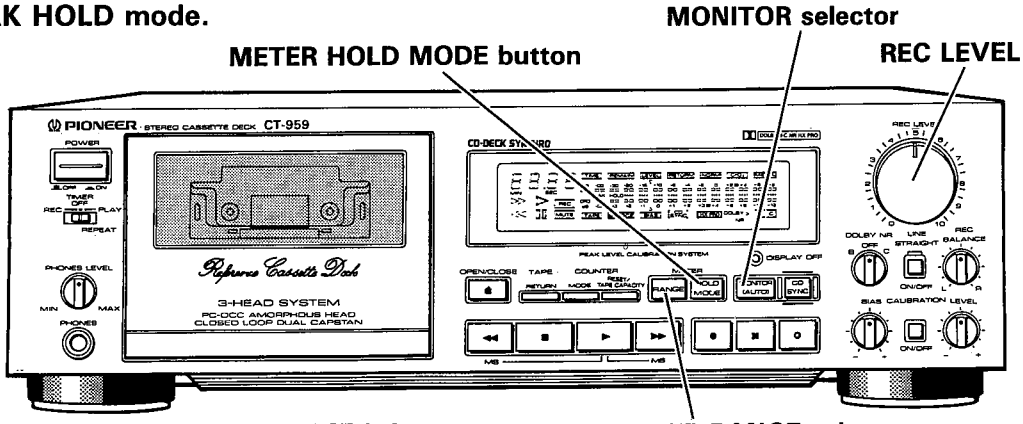
When this button is pressed, recording is made bypassing the balance adjusting circuit. Therefore, when balance adjustnt of L and R channels is not necessary, a clearer recording can be obtained by pressing the LINE STRAIGHT button.

LEVEL ADJUSTMENT USING PEAK LEVEL CALIBRATION FUNCTION (CT-959 only)

1 Press the MONITOR selector and set to SOURCE mode.

2 Press the METER HOLD MODE button and set to PEAK HOLD mode.

An accurate recording level optimum to the volume of the sound source can be easily obtained, as the peak value of the recording source is stored and displayed on the level meter according to the setting of the REC LEVEL control knob.



The illustration shows model CT-959

3 Press the METER RANGE selector and set to expanded range.

4 Play back the part where the volume level of the recording source is likely to be at the maximum output.

The peak value will be displayed on the level meter.

5 Turn the REC LEVEL control knob and set to the recording level optimum to the tape.

Display of peak value will change corresponding to the setting of the REC LEVEL control knob.

Other adjustments

- This cassette deck stores the peak value of the recording source in its microprocessor. If the peak value of both L and R channels is within the expanded range, the recording level can be set to optimum by adjusting the REC LEVEL control knob even after playback is finished.
- The "+12 dB" display will blink in warning if the peak level exceeds +12 dB. Turn the REC LEVEL control knob counterclockwise and set to the proper level. The blinking peak value goes off and a new peak value will be displayed.

Peak level calibration system

This cassette deck stores in its microprocessor the position of the REC LEVEL control knob (amount of dampening) and the peak level of the song played back. This allows the recording level to be automatically set to optimum level even after playback at the peak level.

You do not have to continue watching the recording level during recording, or worry about a recording error caused by an improper recording level.

NOTES:

Display of peak level might exceed the display range of the level meter depending on the position of the REC LEVEL control knob. Roughly adjust the REC LEVEL control knob in advance.

Note that the display of peak level might go off if the REC LEVEL control knob is turned too low.

RECORDING SETTING USING RECORDING CALIBRATION FUNCTION

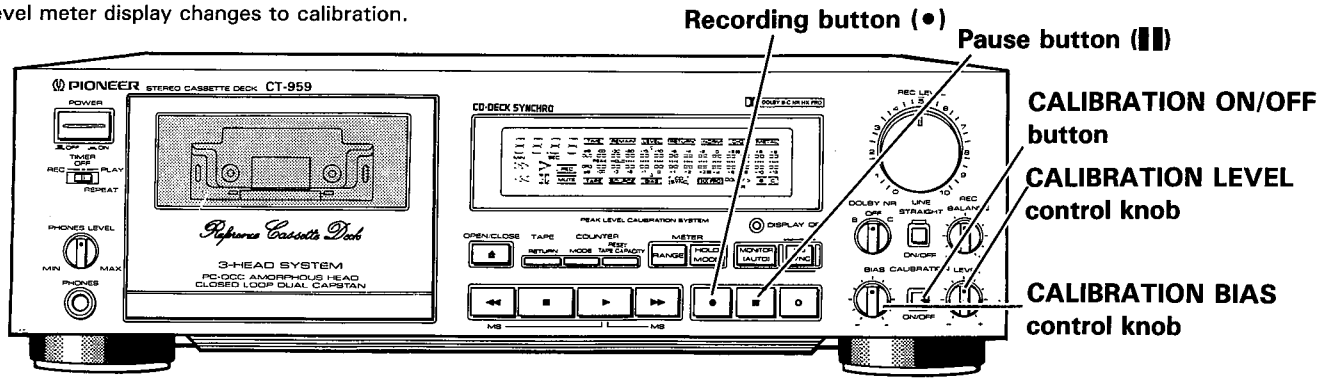
1 Insert a cassette tape for recording.

When not recording from the beginning of a tape, set to the desired position.

2 Press the CALIBRATION ON/OFF button and set recording calibration to ON.

The level meter display changes to calibration.

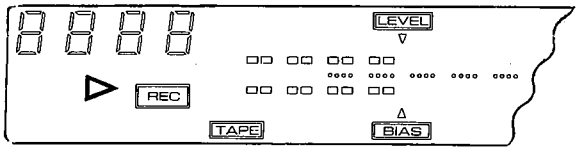
This cassette deck has a function whereby bias and level can be adjusted independently. This allows correction for dispersion of characteristics affected by the cassette tape, resulting in better recording quality.



3 Press the recording button (●) and the Pause button (❚❚) to start recording.

4 Adjust the CALIBRATION LEVEL and BIAS control knobs.

Turn the two knobs alternately so that the respective level displays reach the (LEVEL ▽) or (Δ BIAS) position.



5 Press the CALIBRATION ON/OFF button again.

Recording stops, and calibration display will return to level meter display.

6 Rewind the tape to the starting position.

Press the Rewind button (◄◄) and reverse the tape to the starting position of recording.

CALIBRATION BIAS control knob

Turning clockwise (+) increases bias. The limit of high-pass range will be decreased, but distortion will be decreased.
Turning counterclockwise (−) decreases bias. Although distortion will be increased, the limit of high-pass range will be increased.
By utilizing these characteristics, sound quality can be changed according to the cassette tape or recording source.

REC CALIBRATION

Although the auto tape selector of this cassette deck automatically sets the characteristics optimum to the tape in use, a slight difference remains depending on tape brands. The rec CALIBRATION function allows you to correct such a difference and set the characteristics optimum to the particular tape. Greater effect can be obtained by using this function every time you record.

CALIBRATION LEVEL control knob

Adjusts the recording level according to the recording sensitivity of the cassette tape. Turning clockwise (+) increases the recording level, and turning counterclockwise (−) decreases the level.
This function is especially useful for recording using the DOLBY NR system.

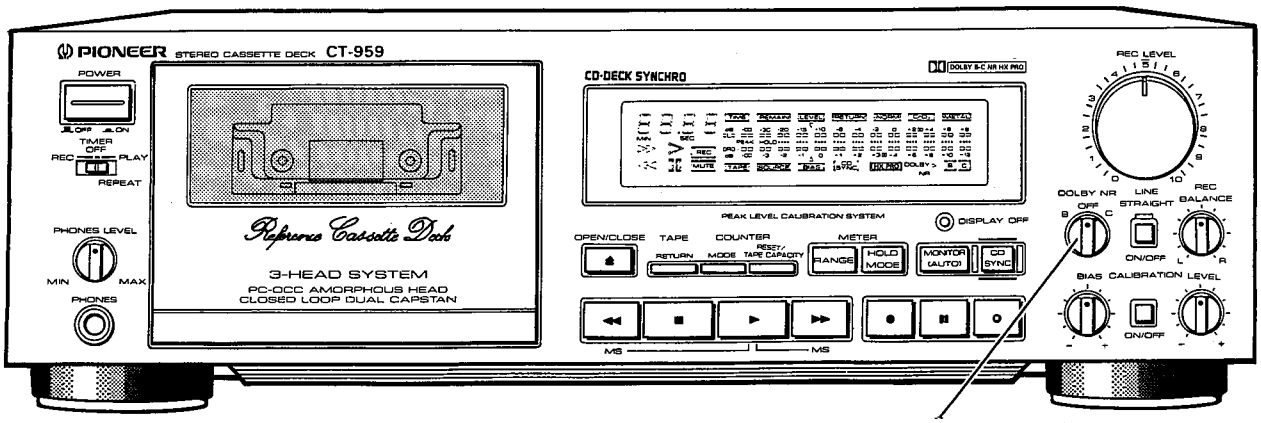
How REC CALIBRATION works:

When the rec CALIBRATION ON/OFF button is pressed, a built-in oscillation circuit is activated and measurement signals will be recorded onto the cassette tape. An adjustment dependent on the tape will be completed by monitoring the signals and adjusting the level to a certain standard. These signals will be erased when the tape is rewound and rerecording is made.
This setting is valid during recording only. There is no need to use it for playback.

NOTES:

- *Playback or fast forward do not function during rec CALIBRATION mode. The cassette tape will stop when the rec CALIBRATION ON/OFF button is turned ON during playback/recording.*
- *Metal tapes might not be adjusted to optimum value, because their high-pass frequency does not change much when the bias is changed.*

DOLBY NR & DOLBY HX PRO



The illustration shows model CT-959

DOLBY NR selector

DOLBY NR SYSTEMS

Dolby NR systems are designed to reduce high-frequency noise (tape his) during playback. The level of low-volume, high-frequency sounds is increased during recording, and decreased by the same amount during playback to restore the original level. At the same time, high-frequency noise (most easily perceived by the human ear) is attenuated as well.

Dolby type-B NR reduces high-frequency tape noise, widening the dynamic range. Type-C NR is even more powerful, applying the noise reduction effect to a wider spectrum of frequencies from the middle range.

For playback always use the same Dolby NR setting that as used for recording.

DOLBY HX PRO HEADROOM EXTENSION SYSTEM

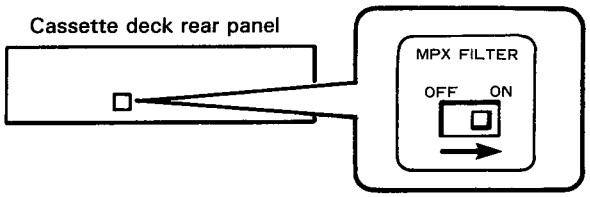
The Dolby HX Pro system controls the bias current during recording and always keeps it at an optimum level according to the high-frequency components of the music signal. It therefore allows excellent recordings even of digital sources which contain a large amount of strong, high-frequency components. The Dolby HX Pro effect is obtained independently from the setting of the Dolby NR systems (type-B, type-C or OFF). Furthermore, since the system is used only during recording, and improvement of sound can be achieved even if tapes recorded with Dolby HX Pro are played back with a deck, radio cassette recorder or car stereo system not equipped with DOLBY HX PRO. To guarantee optimum recording results, the HX Pro system of this unit is automatically activated during recording.

MPX FILTER

For recording FM Stereo broadcasting using Dolby NR System. Turn the MPX FILTER switch located on the rear side ON. Usually set this switch to OFF.

FM stereo signals contain 19 kHz pilot signals and 38 kHz subcarrier signals. Some tuners are affected by these signals, causing Dolby NR system to malfunction. This will result in treble failure. To prevent this, turn the MPX FILTER switch ON.

Set this switch to OFF when not using Dolby NR system or when recording other source than FM stereo broadcasting. No need to use this switch for playback.



NOTE:

Avoid playing back tapes recorded using the Dolby NR systems with the DOLBY NR selector in the OFF position, or tapes recorded without Dolby NR system with the DOLBY NR selector in the ON position (type-B or type-C), since this does not allow faithful reproduction of the original sound.

MUSIC SEARCH (MS)

This function searches for beginning of a song by fast forwarding/rewinding a tape and then automatically starts playback. A maximum of 15 songs forward and backward can be searched for.

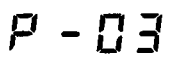
Backward search:

1 Press the Play button (►).

The mode is set to playback.

2 Press the Rewind button (◄◄) for the number of songs to reverse plus one.

For example, if you want to reverse two songs, press the ◄◄ button three times.
The counter will be displayed as shown in the figure, and the desired song is searched out and playback commences.
If the beginning of the tape is reached during search, playback will start from there.



How to count the songs

For example, when playing the fourth song forward, skip four songs. When playing back four songs backward, the beginning of the fourth song backward is attained by skipping five songs including the one currently in playback. The Play indicator (►) blinks during MUSIC SEARCH to show that the function is operating.

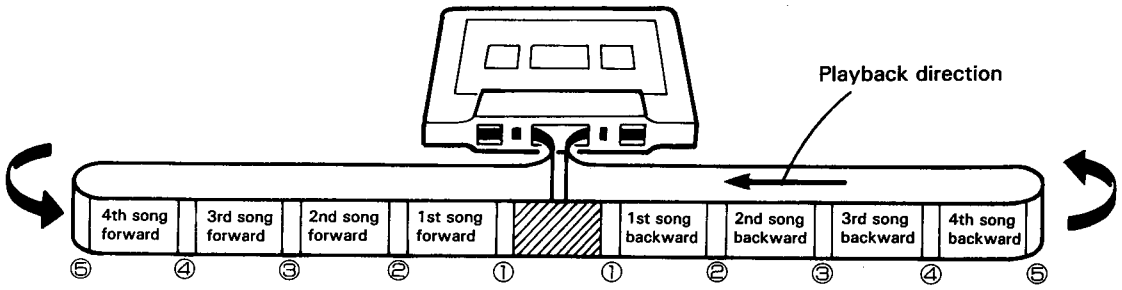
Forward search:

1 Press the Play button (►).

The mode is set to playback.

2 Press the Fast Forward button (►►) for the number of songs to fast forward.

For example, if you want to fast forward three songs, press (►►) the button three times.
The counter will be displayed as shown in the figure, and the beginning of the desired song is searched out and playback commences.



Song being played back.

Skips four songs forward and the 4th song is played back.

Skips five songs backward and the 4th song is played back.

Tape running direction ⟶

MUSIC SEARCH might function incorrectly with the following types of tapes, because blanks between songs cannot be read correctly. This is not a malfunction.

1) A tape where blanks between songs are less than 4 seconds.
2) A tape which contains several seconds of continuous low volume (like in some classic music), or when a song contains several blanks for a few seconds each.
3) A tape where conversation is recorded and there are several blanks over 4 seconds (e.g. meeting or foreign language learning tape).
4) A tape containing blanks with noise.

TIMER PLAYBACK

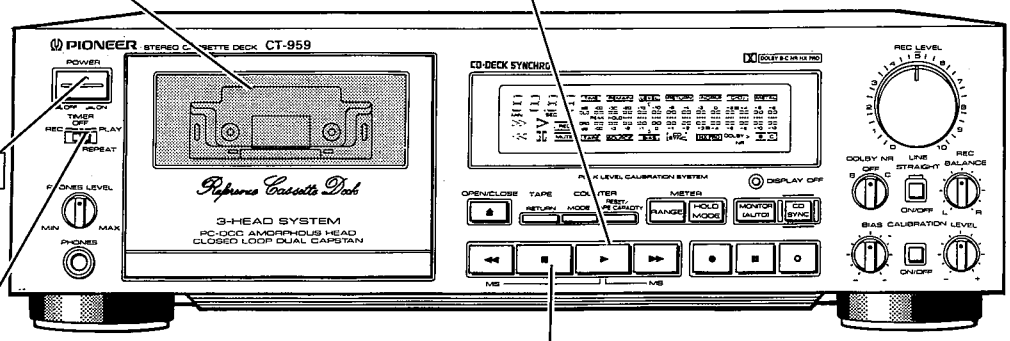
(alarm playback)

The illustration shows model CT-959

1 Insert a cassette tape.

3 Press the Play button (►).

Adjust the volume level of the amplifier.



Turn the power ON.

2 Set the TIMER selector to PLAY/REPEAT side.

* The mode will change to REPEAT PLAYBACK (see page 9).

4 Press the Stop button (■).

5 Set the AUDIO TIMER to the desired time.

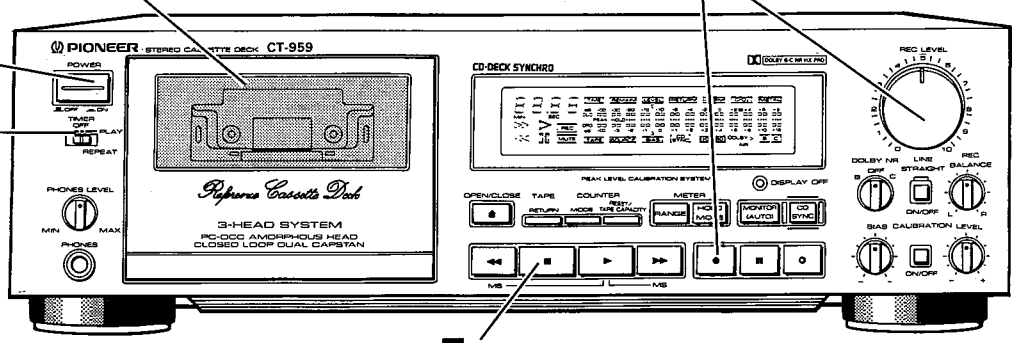
* The power of respective devices will turn OFF after setting.

TIMER RECORDING

The illustration shows model CT-959

1 Insert a cassette tape.

4 Press the Recording button (●) and adjust the recording level with the REC LEVEL control knob.



Turn the power ON.

2 Select the recording source at the amplifier.

3 Set the TIMER selector to REC side.

5 Press the Stop button (■).

6 Set the AUDIO TIMER to the desired time.

* The power of respective devices will turn OFF after setting.

For proper volume level and sound quality, adjust the amplifier by playing back the tape backward with a timer setting. Also, select the DOLBY NR type (B or C) according to the type of tape.

Make sure to set the TIMER selector to the OFF position when not using the TIMER or REPEAT playback function.
If the selector has been set to Play or REC, playback/recording will begin automatically when the power is turned ON.
Do not use a tape with depressed tabs.

Select the DOLBY NR type or MPX FILTER, or adjust the balance of L and R channels, bias and volume level backward setting by the timer.
Refer to the audio timer operating instructions for connection.

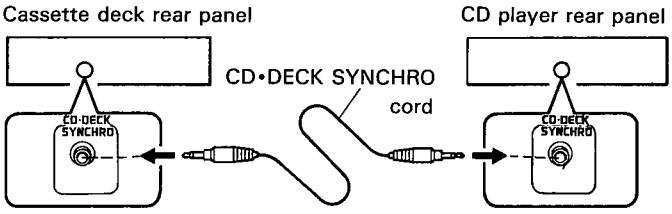
NOTES:
Make sure that the CALIBRATION button is OFF. If the button is ON, TIMER function does not work.

CD·DECK SYNCHRO RECORDING

(Synchronous recording with a CD player)

1 Connect the CD player with the included CD·DECK SYNCHRO cord.

(Insert the cord completely, otherwise the CD player might not function properly.)



NOTES:

For CD listener who uses only an optical cable

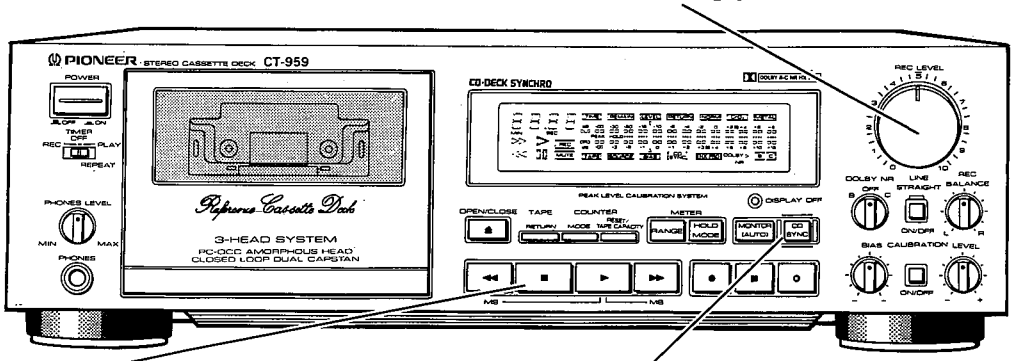
If the CD player is connected to the amplifier only with an optical cable, it will not work. Additionally, connect the analog output of the CD player to the amplifier with a connection cord.

2 Set the recording source of the amplifier to CD.

3 Insert a CD into the CD player.

4 Play the CD player. (Press the Play (►) button of CD player)

5 Adjust the recording level according to the recording procedure. 〈See page 10.〉



6 Press the Stop button (■).

Press the Stop button (■) of the CD player.
If both the CD player and cassette deck are not in the stop mode, CD·DECK SYNCHRO function will not work correctly.

7 Press the CD SYNCHRO button.

The CD player starts playback, and recording begins automatically.

After recording is started:

■ When playback of the CD is completed:

The CD player stops and the mode of the cassette deck changes to recording standby (Pause). After one minute, recording will stop.

■ When the CD player changes discs:

(When using TWIN CD or MULTI CD player)
The mode of the cassette deck changes to recording standby (Pause). Recording will resume when the next disc begins playing back. The automatic blank space produced from this break will be approximately 4 seconds.

■ When the tape runs out during CD playback:

The CD player reverses to the beginning of the song being played back, and the mode changes to Pause. Reverse or replace the tape and press the CD SYNCHRO button. Recording will resume. (This must be done within 1 minute, otherwise the CD player stops.)

■ When the cassette deck is set to stop mode during playback:

The CD player reverses to the beginning of the song being played back in the same manner as described above, and the unit becomes recording stanby (Pause) mode.

CD·DECK SYNCHRO function is valid only for Pioneer CD players compatible with the CD·DECK SYNCHRO function.

Be sure to use the included cord for connection.
Both TWIN CD and MULTI CD types can be used for the CD player.

- TWIN CD refers to Twin Tray CD Player.
- MULTI CD refers to Magazine Type CD Player (6-discs CD player).

■ Programmed recording
Recording order can be programmed with the CD player when setting CD.

■ Starting timing of the CD player and the cassette deck
Although recording will start when the CD SYNCHRO button is pressed, the CD will not be played back until the button is released. This can be used for skipping the leader tape or producing blank spaces during recording.

TROUBLESHOOTING

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used.
If the trouble cannot be rectified even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

Symptom	Cause	Remedy
No power.	Power plug is disconnected.	Check the connection.
Tape does not work.	Tape has run out.	Rewind the tape.
	The deck is in pause mode.	Press the Pause button again.
	Cassette tape is inserted incorrectly.	Insert the cassette tape correctly.
	CALIBRATION ON/OFF button is ON.	Turn the CALIBRATION ON/OFF button OFF.
No sound.	Connection is incorrect.	Check the connection.
	Control knobs are set incorrectly.	Set the correct positions depending on playback conditions.
Cannot record.	Tabs of the cassette tape are removed.	Use another tape, or affix adhesive tape to the tab position (see page 4).
	Head is not clean.	Clean the head (see page 21).
	REC LEVEL control knob is set to "0".	Turn the REC LEVEL control knob clockwise.
Insufficient high-pass range	Head is not clean.	Clean the head (see page 21).
	Bias value is improper.	Turn the CALIBRATION-BIAS control knob counterclockwise. (see page 13.)
		Check if the tape has a CrO_2/METAL detection hole.
	A tape not recorded by DOLBY NR system is played back with the DOLBY NR switch set to ON (B-type or C-type).	Turn the DOLBY NR switch OFF.
Sound is distorted.	Head is not clean.	Clean the head (see page 21).
	The tape contains distortion.	Replace the cassette tape.
	REC LEVEL is set too high.	Decrease the REC LEVEL.
Sound is unstable.	Pinch roller, capstan and head are not clean.	Clean the pinch roller, capstan and head (see page 21).
	Tape is not wound uniformly.	Rewind the tape.
A lot of noise occurs.	Head is magnetized.	Demagnetize with the head eraser (see page 21).
	Tape contains a lot of noise.	Replace the cassette tape.
	Connection cord is disconnected.	Check the IN/OUT connections and insert the cord correctly.
	REC LEVEL is too low.	Increase the REC LEVEL.
Treble is too strong.	A tape recorded by DOLBY NR system is played back with the DOLBY NR selector set to OFF.	Turn the DOLBY NR selector to ON (B-type or C-type).
Cannot erase.	REC LEVEL control knob is not set to the minimum.	Turn the REC LEVEL control knob fully counterclockwise.
	Head is not clean.	Clean the head (see page 21).
MUSIC SEARCH does not function.	Blanks between songs are less than 4 seconds.	Use a proper cassette tape.

Symptom	Cause	Remedy
REMAIN tape display does not match with actual amount.	TAPE CAPACITY selector is set incorrectly. (CT-959 only)	Set to the correct tape type (see page 11).
Meter does not display.	The mode is set to DISPLAY OFF.	Press the DISPLAY OFF button and set the mode to ON.
CD·Deck Synchro recording cannot be carried out.	CD·Deck Synchro control cord and Input/Output cords are not connected.	Connect correctly (see page 19)
CD SYNCHRO indicator is flashing	The cassette erasure preventation tabs are broken.	Replace the cassette with one whose tabs are intact.
	The tape has run out while in the CD·DECK SYNCHRO mode.	Replace the tape with a longer one.

MAINTENANCE

Check the head for contamination.

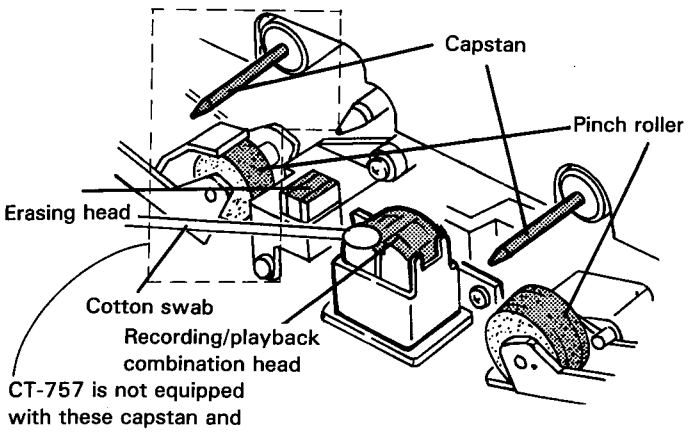
■ If the head is dirty, the sound might become unclear or distorted, disturbing proper recording or playback. Make sure to keep the head clean.

Cleaning of the head

The heads, capstans and pinch rollers are easily affected by contamination from tape rotation, dirt or oil. Wipe away the contamination periodically (once every ten hours of use) with a commercially available head cleaning swab.

■ Cleaning Procedure

1. Press the cassette door OPEN/CLOSE button and open the door.
2. Lightly moisten the cleaning swab with cleaning liquid, and clean the heads, capstans and pinch rollers.



NOTES:
Before setting a cassette tape, wait a few minutes to make sure that the cleaning liquid has dried.

Demagnetization of the head

Long term use of the cassette deck might cause the head to be come magnetized. A similar disturbance might also occur if you place a piece of iron (such as a screwdriver) or magnet close to the head. A magnetized head could cause unclear treble or noise during recording or playback. Demagnetize the head periodically with a commercially available head eraser.
Make sure to turn the power OFF when demagnetizing the head. See the operating instruction of the head eraser for details.

Cleaning the front panel and bonnet

Wipe with a dry cloth normally. If the unit becomes very dirty, wet a soft cloth with neutral detergent diluted with a water, wring out well, gently wipe the dirt away, and then remove any water drops with a dry cloth. Note that alcohol, thinner, benzene, or other volatile solvents may cause damage to the paint. If you use a chemical duster, carefully read the cautions for its use.

SPECIFICATIONS

System ..... 4-track 2-channel stereo
Heads .....
Recording/playback head
(Combined amorphous recording/amorphous playback head) × 1 [CT-959]
(Combined Hard permalloy recording/Hard permalloy playback head) × 1 [CT-757]
Erasing head
(Double-gap ferrite head with sendust) × 1 [CT-959]
(Double-gap ferrite head) × 1 [CT-757]
Motor ..... DC servo capstan motor × 1
DC reel motor × 1
DC assist motor × 1
Wow and flutter ..... 0.022%(WRMS)[CT-959]
±0.052%(DIN)[CT-959]
0.024%(WRMS)[CT-757]
±0.06%(DIN)[CT-757]
Fast-winding time ..... Approx. 80 sec. (C-60 tape)
Frequency characteristics (−20 dB recording)
Metal tape ..... 15 Hz to 22,000 Hz
CrO_2 tape ..... 15 Hz to 21,000 Hz
Normal tape ..... 15 Hz to 21,000 Hz
Signal-to-Noise Ratio
DOLBY NR OFF ..... More than 60 dB
Noise reduction effect
DOLBY B-type NR ON ..... More than 10 dB(at 5 kHz)
DOLBY C-type NR ON ..... More than 19 dB(at 5 kHz)
Harmonic distortion ..... No More than 0.6%(0 dB)
Input ..... LINE:60 mV
(Input impedance:47 kΩ)
Output ..... LINE:316 mV
(Output impedance:1.8 kΩ)
Head phones:2.3 mW
(Load impedance 8Ω, VR max.)

Miscellaneous

Power requirements
European model ..... a.c. 220 V~, 50/60 Hz
U.K. model ..... a.c. 240 V~, 50/60 Hz
Power consumption ..... 24W [CT-959]
25W [CT-757]
Dimensions ..... 420 (W) × 134.5(H) × 370 (D) mm
16-9/16 (W) × 5-5/16 (H) × 14-9/16 (D) in.
Weight ..... approx. 8.4 kg (16 lb 7 oz) [CT-959]
approx. 7.3 kg(18 lb 8 oz) [CT-757]

Accessories

Operating instructions 1
Connection cord 2
CD·DECK SYNCHRO cord 1

NOTE:
Specifications and design subject to possible modifications without notice, due to improvements.

Functions

- 3-mode counter (CT-757 has two modes)
- ATLC (Auto Tape Loose Canceler)
- Meter range (wide/expanded) selector
- AUTO MONITOR
- Power eject (OPEN/CLOSE)
- MUSIC SEARCH
- TAPE RETURN/RETURN Play
- Headphones jack (with level control)
- LINE STRAIGHT (CT-959 only)
- DISPLAY OFF
- CD·DECK SYNCHRO
- PEAK LEVEL CALIBRATION system (CT-959 only)
- REC CALIBRATION (BIAS/LEVEL, built-in oscillator)
- MPX filter switch
- AUTO RECORDING MUTE
- Auto tape selector
- Timer start function recording/playback • REPEAT playback
- Dolby B-type and C-type Noise Reduction systems
- Dolby HX-PRO system
- Level meter: 2-mode PEAK HOLD selector

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<90D03YY0S02>

Printed in Japan <RRE1028-A>